

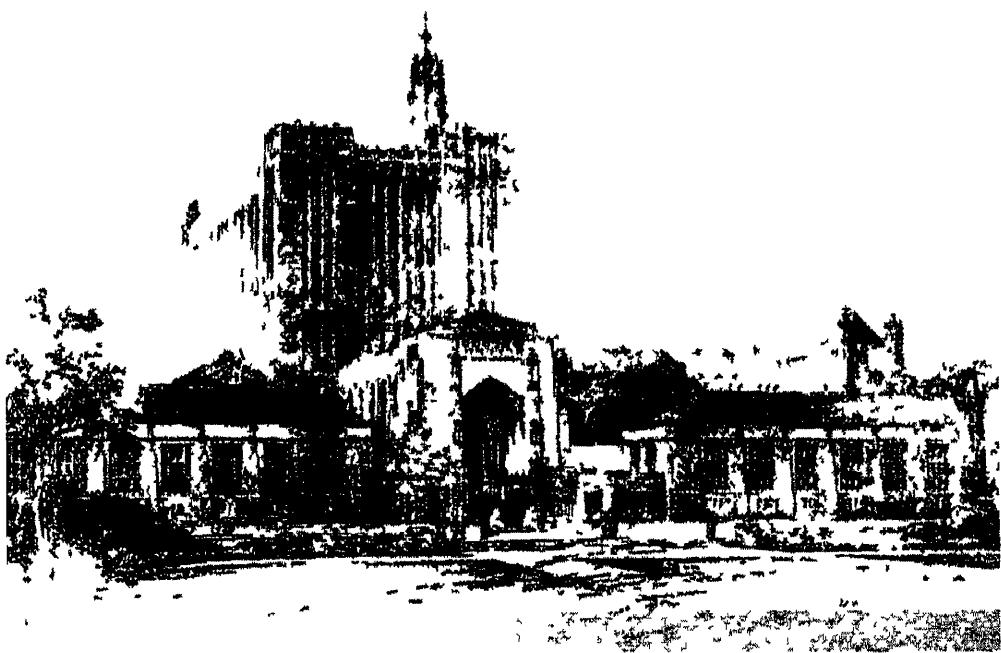






**BOOKSTACKS  
& STACK ROOM  
EQUIPMENT**

**SNEAD & COMPANY**  
ESTABLISHED 1849  
**92 PINE STREET, JERSEY CITY, NEW JERSEY**



*STERLING MEMORIAL LIBRARY, Yale University*

*Equipped with Snead Standard Stacks*

*JAMES GAMBLE ROGERS, INC, Architects*

*ANDREW KEOGH, Librarian*

# F O R E W O R D

**T**ODAY, metal bookstacks are accepted everywhere as the only practical and suitable equipment for the modern library. As the leading firm engaged in their manufacture, the name of Snead and Company has been identified with metal bookstacks ever since they were first designed.

Because of the great wealth of material which we have available in this field, the subject sometimes appears unduly complicated to those inexperienced in library design. For that reason we publish this little book, to serve as a guide to those who are concerned with either the public or private library, and to set certain standards from which more detailed and elaborate plans can be made.

It seems unnecessary to suggest that librarians will find themselves in a decidedly advantageous position in discussing their requirements with the library board, architect or bookstack representative, if they are informed of the simple principles of library bookstack planning outlined in this brochure.

Library equipment of a truly modern type—that is, fireproof, compact, durable and capable of wide expansion vertically as well as horizontally—came into being about 40 years ago, when the Library of Congress at Washington was built. Snead and Company was the manufacturer of this revolutionary nine-tier metal bookstack, and has been closely allied with every stage of the development of the modern library since that inception.

When great libraries are built in any part of the world, Snead and Company is usually called into consultation. A recent example of this is the

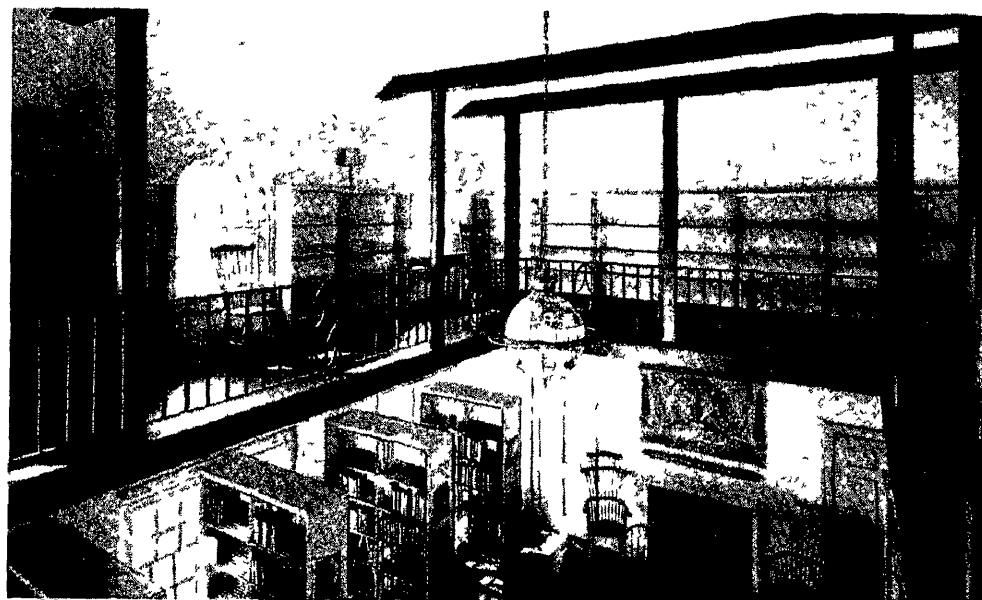
(OVER)

re-organization and rebuilding of the Vatican Library at Rome

The conclusion must not be drawn, however, that Snead and Company is interested solely in large library projects. On the contrary, the modest public library, the legal library, the private collection, or the school, church or club library, as well as the large university or city library, can all be suitably and economically housed with Snead equipment. Whether you wish to secure Snead equipment to be installed by local workmen, or whether

you desire Snead and Company to take full responsibility for everything in the stack room, you may be assured of the fullest co-operation and service, at every stage from the plans to the finished library.

On the following pages we outline the fundamentals which it is necessary to understand before planning a library, and describe in some detail certain standards of equipment which we have established in order that every library may enjoy the price advantages of quantity production.



*An example of a small Snead installation showing Snead Standard Stacks, Type B, in Public Library, Teaneck, N. J.*

# STANDARDIZATION OF BOOKSTACK TYPES

**F**EALIZING the saving in expense and the prompt shipment possible if certain standards can be adhered to in the selection of library equipment, we have worked out a group of types and sizes, all more or less adjustable, which should be of real help in planning a library. These standards were selected after a careful survey of the kind of equipment most frequently used by libraries, and are based on our knowledge of the problems encountered in library design. Aside from an appreciable saving in expense, uniformity based on standards such as these allows for interchanging and expansion of the stack capacity by units.

The bookstacks which we describe in detail in this booklet, fall into two types, Bracket and Standard. The Bracket types are less expensive in first price and transportation costs and are more easily erected by local workmen. The Standard

types are often preferred for their architectural merit, compactness, convenience, rigidity, completeness in detail and superiority of finish. The Standard stack illustrated in Figure 2 is the most durable and beautiful bookstack made, excellent from every point of view.

The Bracket type stack is itself divided into two classes top-braced and free-standing (see figures 3 and 4). The latter is slightly more expensive due to its heavy four-inch fixed base. Such free-standing stacks may be screwed to the floor or simply set up without any attachment, their weight and design keeping them firm and rigid. Single-faced Bracket stacks are usually fastened to the wall with expansion bolts.

## the bracket type stack

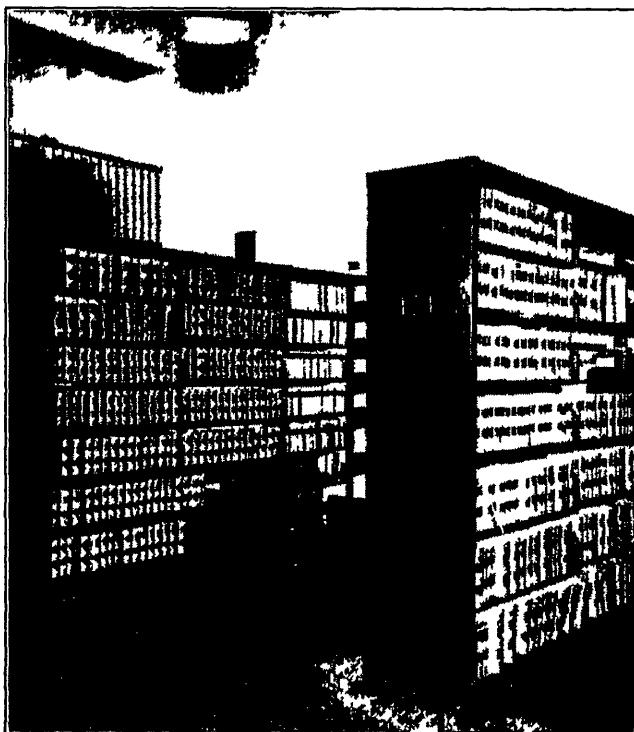


Fig 1 Free-standing Bracket Stack with covered ends, New York County Lawyers Association, New York City

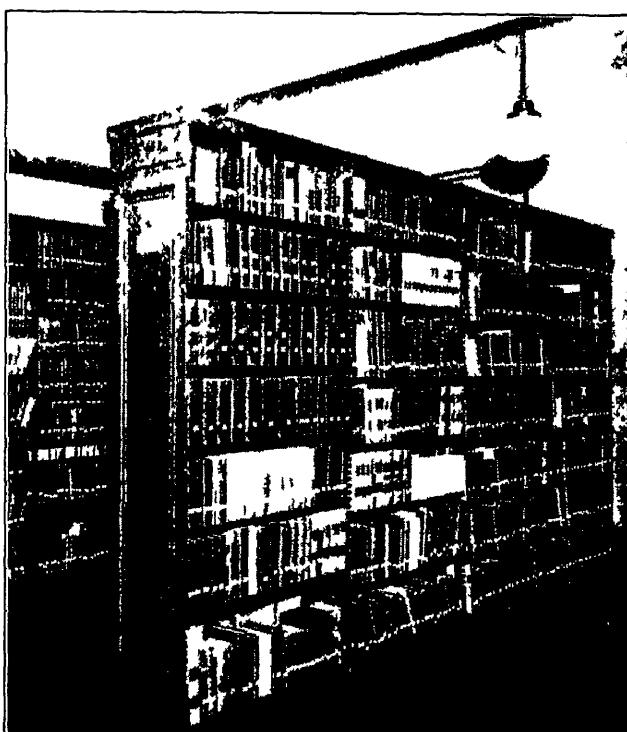


Fig 2 Snead Standard Stack, Type B, with solid panel design end uprights, showing easy adjustability of Snead open bar shelves



All of these Bracket type stacks are delivered completely finished with baked-on enamel. They are light, compact and easily assembled.

If the Bracket stack is selected and it is thought desirable to make it more attractive in appearance, steel ends (see figure 1) may be added.

There are certain dimensions which have proved most satisfactory and which we therefore strongly recommend. The most desirable shelf length is 3'0". We advise dividing available space in multiples as close as possible to these figures. Shelves are made 8", 10" and 12" deep, for books, and 18", and occasionally 22" deep, for newspapers. The best Bracket stack height for single tier installations is 7'3" over-all, which allows for 7 rows of books shelves or about 12 rows of newspaper shelves—all of which are adjustable every inch in the top-braced type, while the base shelf is stationary and the rest adjustable in the free-standing type. Of course, stacks may be higher, if so desired, but if possible one should avoid the necessity of using a step ladder. If the stacks are to be higher, and if 14 to 15 feet of clear height is available, a multi-tier design is the most satisfactory solution. Multi-tier work is taken up

in more detail on page 11 of this book.

The Snead Standard stack with cast iron shelf supports, which is a direct descendant of the Library of Congress stack, has a satisfying architectural character and is extremely substantial and attractive from every point of view. The facts that it can be given any finish and color, and that special designs may be embodied in the end panels, allow it to be treated as an integral and contributing part of the interior design of the building.

The same considerations concerning shelf lengths apply to the Standard as to the Bracket stack. The shelves come 8", 10" and 12" deep and may be either the plain solid steel plate or the special Snead Open Bar shelves. In either case they are given four-point support in place. The adjustable shelves are completely factory-finished in baked-on ebony black japan, the most durable finish known.

All parts except the adjustable shelves are shipped with a prime finish of gray paint and the

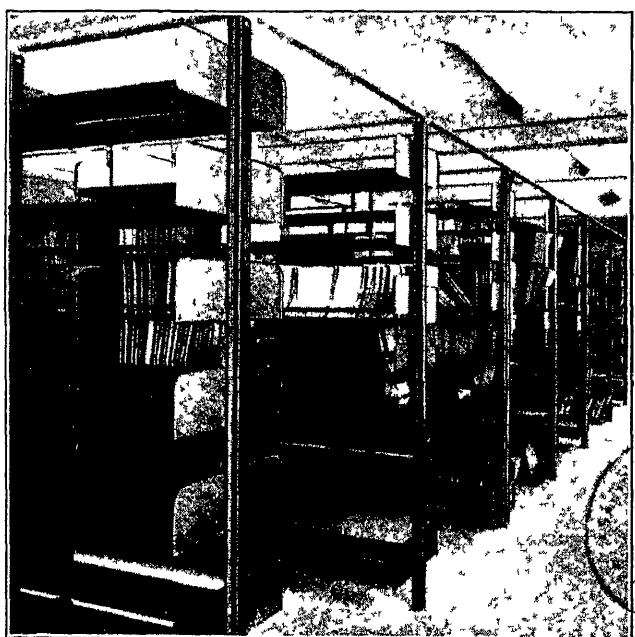
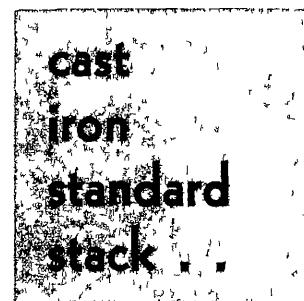


Fig 3 Single tier installation showing Snead top braced bracket stack in the Norwegian Institute of Technology, Trondhjem, Norway

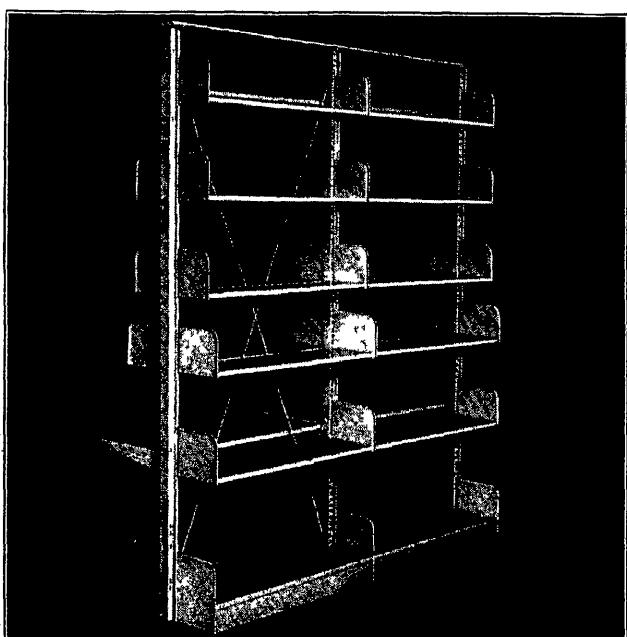
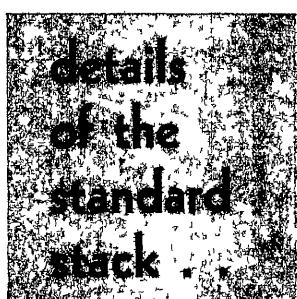


Fig 4 Snead free-standing bracket stack. For added attractiveness, steel ends and cover plates may be added. Note 8" and 18" newspaper shelves, top and bottom, rear.

final color is put on after the stack is in place. This has been found preferable to factory enameling because it gives the most satisfactory effect, and may be touched up when necessary, without such repairs being apparent.

The Standard stack height for single tier installations has been established at 7'4", though



here, again, variation is possible. This height accommodates six rows of adjustable shelves, and a fixed bottom or base shelf 4" high. At the top a 2" deep cover plate is provided. No overhead bracing of any kind is required with the Standard stack, though single-faced ranges usually are attached to the walls.

Due to standardization and large production, we can offer this finest and most durable stack at prices which make it available to every library.

If a single tier Standard stack is required, its erection and finishing may be undertaken by the owners. We furnish complete instructions and local workmen can usually do an entirely satisfactory piece of work at a cost much below what we would

have to charge for sending our own men. We are glad to undertake the complete responsibility, however, if it is desired.

Bookstacks of the sheet steel type (see figure 6), usually fall about halfway between the Blanket and the other standard type in erected price. This stack is made to an over-all height of 7'6", has a 4" high base and 2" deep cover plate. There are regularly six shelves with vertical adjustment at intervals of  $\frac{5}{8}$ "

Regular shelf sizes are 8", 10" and 12" in depth, and a 3'0" shelf length is recommended here, as in other cases. All parts of sheet steel stacks are shipped finished with baked-on enamel and no field finishing is necessary. This type is particularly suitable for low shelving under windows (see figure 12).

The great advantage of having standard widths, heights and lengths in mind when planning a stack room is at once apparent. In addition, a number of other points should be remembered. In the first place, it is always cheaper to install stacks in a plain

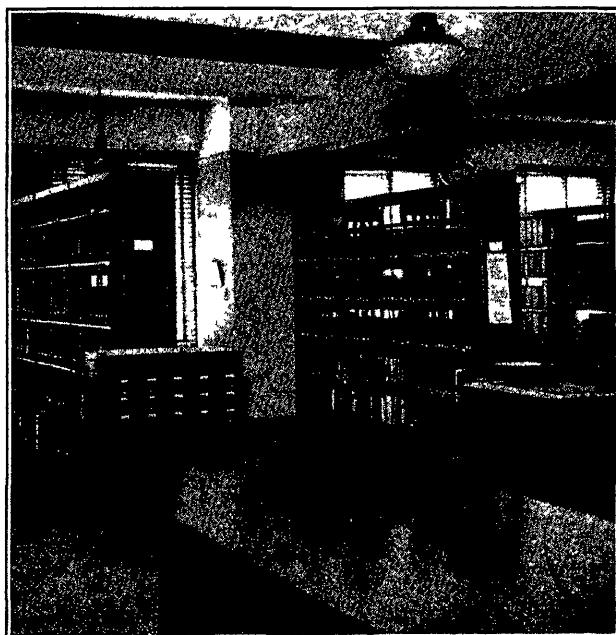


Fig 5 Snead Standard Stack, American Institute of Banking, New York City

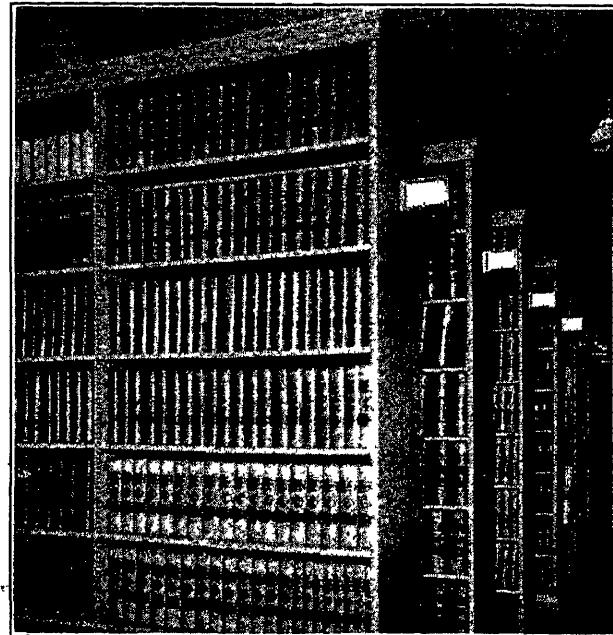


Fig 6 Free-standing steel Standard Stacks, Essex County Law Library, Newark, N J

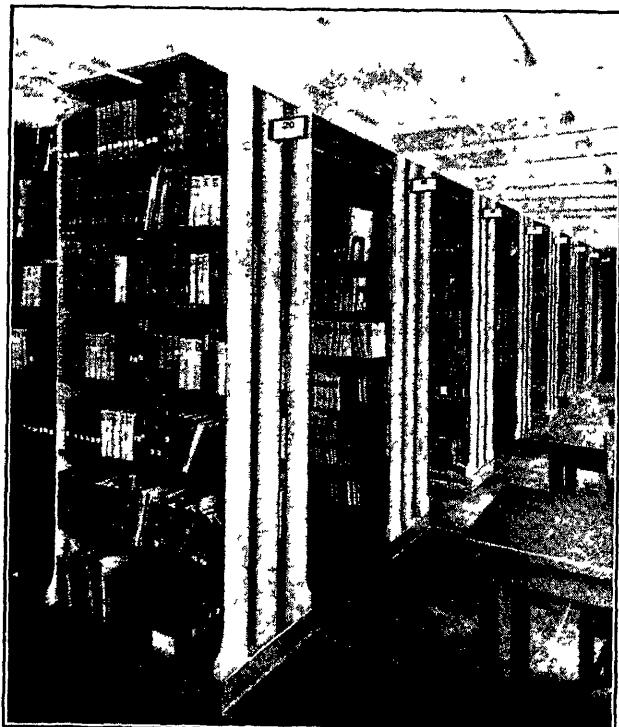


Fig 7 Snead Standard Stack, Type A, Baker Memorial Library, Dartmouth College, Hanover, N H

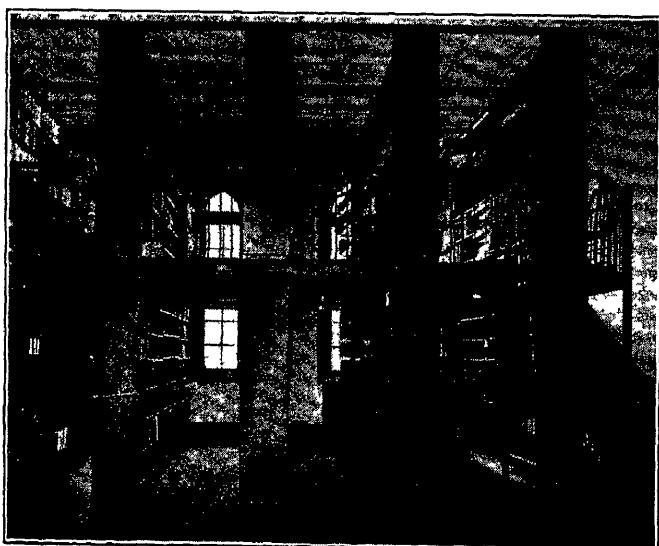
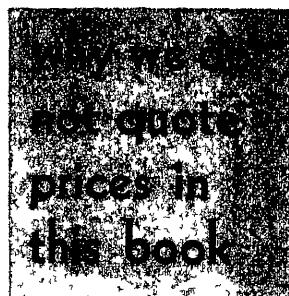


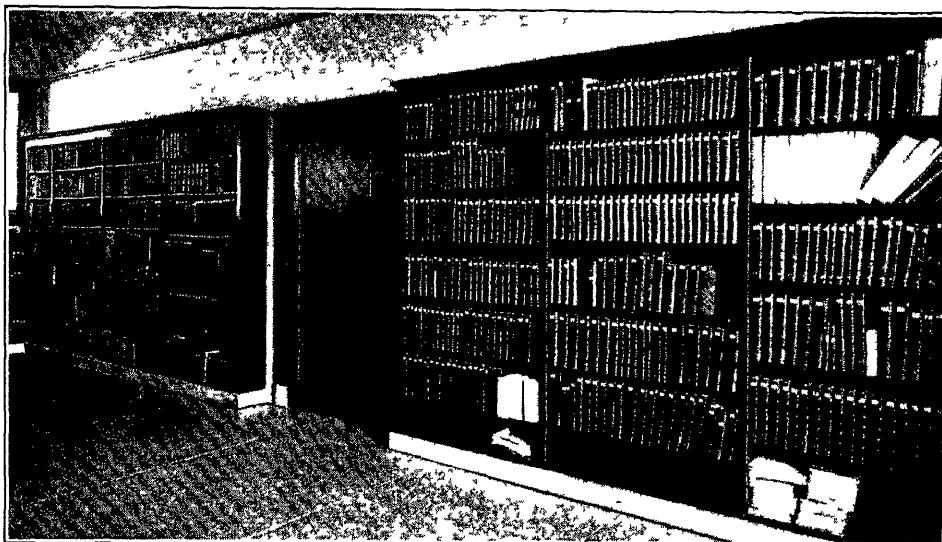
Fig 8 Snead Standard Stack, Type A, Library of Congress, Washington, D C

Fig 9 (Right) Bracket stack with covered ends, Public Library, Somerville, N J

square or rectangular space Wall irregularities, pipes, baseboards, moulding and such protrusions should be completely eliminated or reduced to a minimum This is likewise true of wainscoting, chair rails and plaster ornamentation, all of which may increase the special work necessary If possible, have wall piers built to project outward rather than into the stack rooms

In the past we have learned that it is not satisfactory, either to the owners or to ourselves, to quote prices until we have some data on the particular problem Since every library differs from others in many details, any figures given would be so widely approximate as to be valueless We suggest rather that you follow one of these plans either (a) fill in the specification blank enclosed with this book, or (b) write us a letter covering your proposed plans, or (c) draw up a rough pencil sketch showing your ideas, or (d) ask us to send a representative to you We will be able to furnish a rough estimate based on this preliminary data, which can later be followed by a complete and detailed bid, if you request us to proceed





DO not hesitate to consult with us at any time. You may be sure you will receive our fullest cooperation, and the advantage of our forty years of experience, without any obligation to yourself.

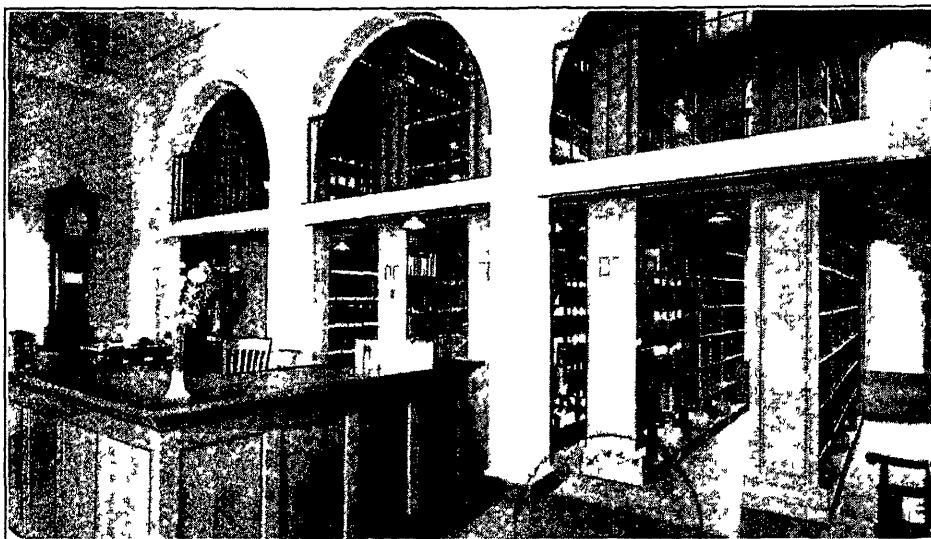
Fig. 10 Snead sheet steel wall cases, Widener Memorial Library, Harvard University



Fig. 11 Snead Standard Type B Stack in the Reading Room, second floor, Legler Branch, Chicago Public Library



Fig. 12 Snead sheet steel low cases located under windows, Tulane University, New Orleans, La



ALL three illustrations on this page show the attractiveness of balcony effects, possible only with multi-tier construction

Fig 13 *Snead Standard Type B Stacks, multi-tier construction, with paneled ends, Port Chester Public Library, Port Chester, N Y*



Fig 14 *Snead Standard Stack, Type A, multi-tier construction, Minneapolis Public Library*

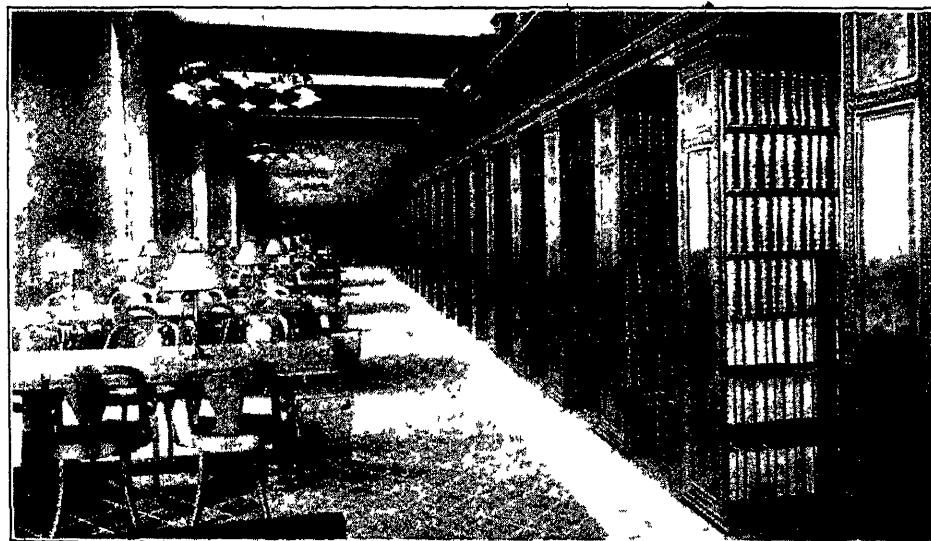


Fig 15 *Snead Standard Stack, Type B, multi-tier construction, with ornamental end panels, New York Public Library, Patents Room, New York City*

REVIOUS to the building of the Library of Congress, the capacity of libraries was usually increased either by adding to the shelving vertically or by the use of balconies, or both. Recent years have brought more and more attention, however, to the multi-tier construction in which ranges are built one upon another so that the bookstacks themselves become an integral part of the building, serving not only to house adequately large numbers of books but also to carry the deck floors and help support the roof and brace the walls. This idea is so distinctly revolutionary, and has such far-reaching applications, that it is receiving much attention from modern library architects.

Either the Bracket or Standard type stack is suitable for multi-tier construction, though the latter, due to its architectural character, adds more

to the interior beauty of the building. Because of the elaborate nature of multi-tier work, our usual practice is to contract with the owners for the complete construction, with the bookstacks finished, painted and in place.

Our experts have given special consideration to the question of interior finish and deck flooring in multi-tier work. While space here does not permit us to go into this subject, we shall be glad to advise you at any time.

Our facilities are flexible enough so that we can take charge, under one contract, of everything necessary to equip fully both the stack and the service rooms of the modern library—including lighting, heating, ventilating, air conditioning, deck flooring, book conveying facilities, and all the accessories of the efficient stack room.

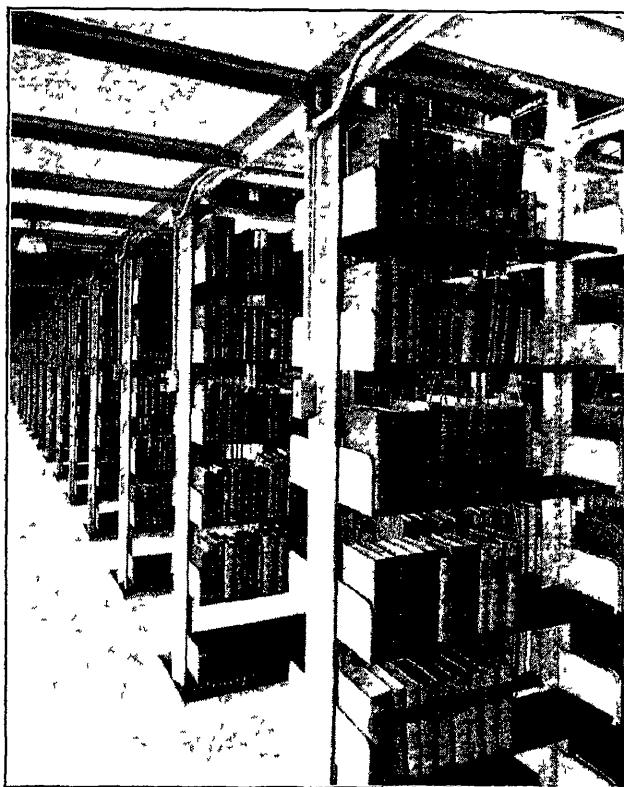


Fig. 16 One tier of a multi-tier bracket stack, in the San Francisco Public Library

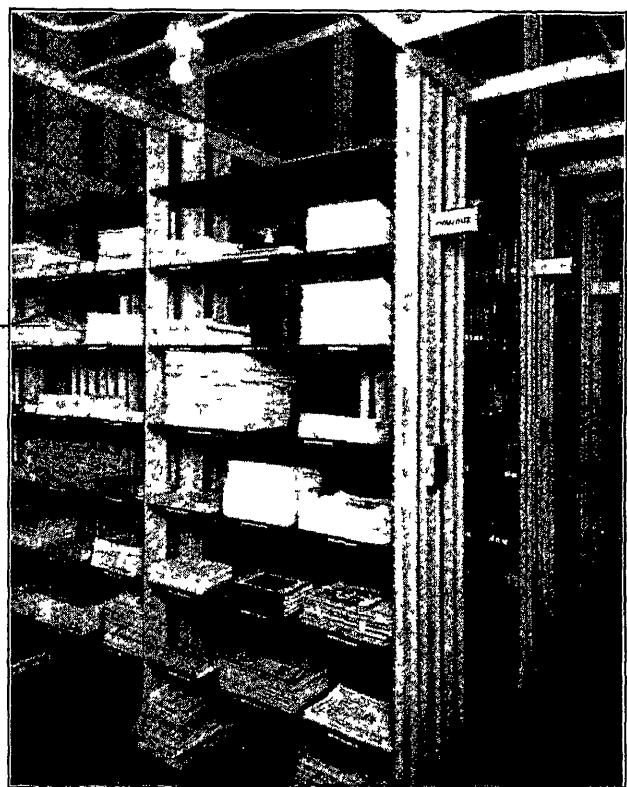


Fig. 17 Multi-tier standard stack, Type A, Albert Emanuel Library, University of Dayton, Dayton, Ohio, showing stripped upper tier to be equipped later

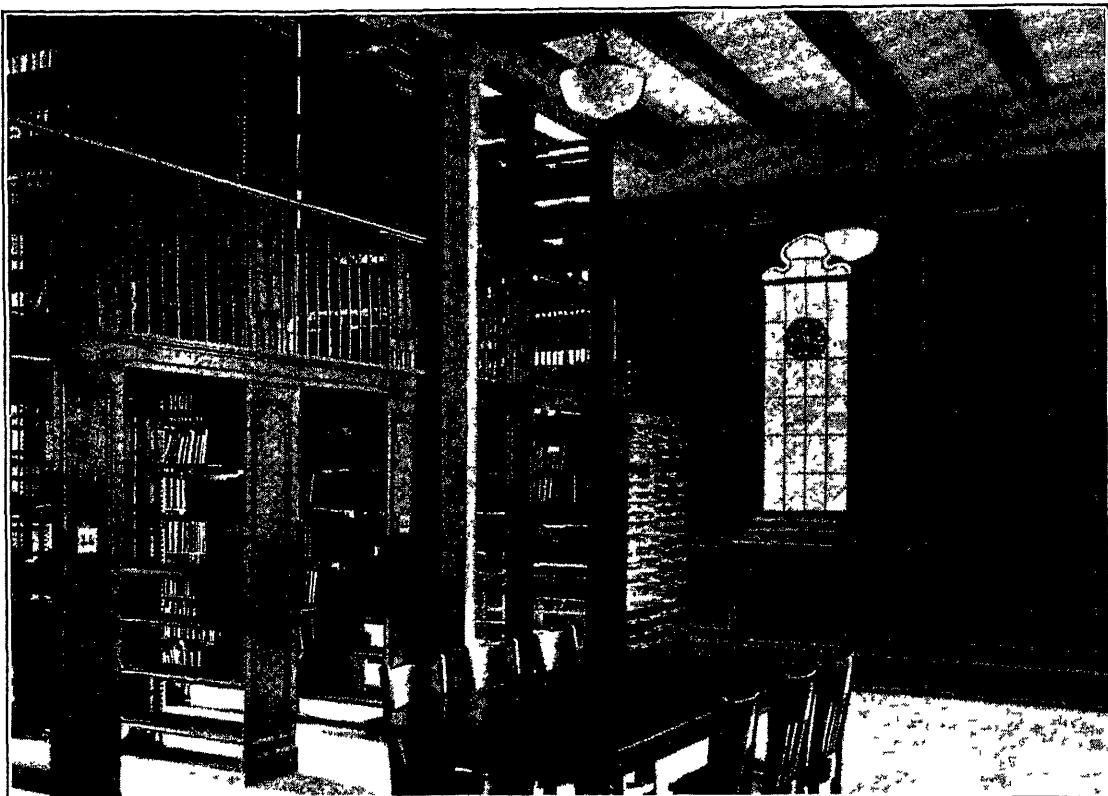


Fig 18 Snead Standard Type B Stack showing the attractiveness of end panels to harmonize with the architectural motif in the Garrett Biblical Institute, Evanston, Illinois

## SPECIAL

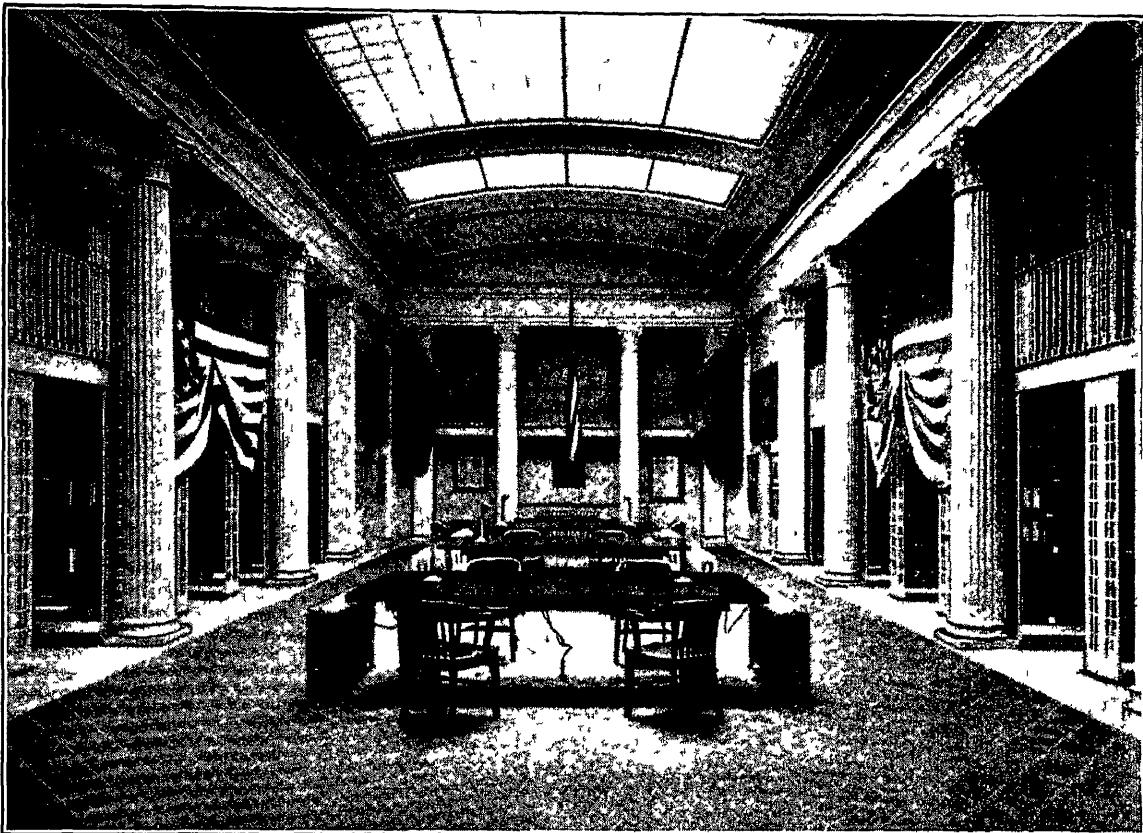


Fig 19 Snead Standard Type B Stacks in the Mt Pleasant Branch Library, Washington, D.C., showing wooden trim carried over the face of the range

THE fact that we have set certain standards, outlined in the previous pages, should not be taken to imply that Snead and Company is not prepared to supply any type of bookstack equipment, no matter how much it may vary from standard dimensions. These standards have been set up only to facilitate planning and to lessen costs to the owners.

There are, however, a great many cases where especially designed work is the best solution. One such case is the intimate private library or special collection, where the standard types of bookstacks may not seem particularly suitable or appropriate, or where requirements may be unusual.

A second case where special design work is obviously called for is in equipping a stack room which does not divide up economically according to standard dimensions. In such

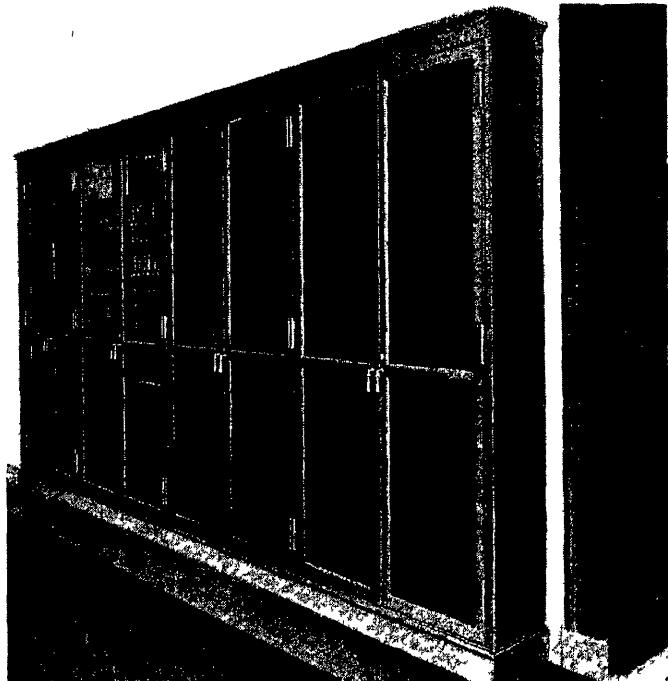


*Fig. 20 Two-tier Snead Standard Type B Stacks, Colonial design, in the Maryland Historical Society, Baltimore, Maryland*

## DESIGN WORK

circumstances it is far better to pay the additional cost of especially fabricated equipment rather than to waste space. It should be borne in mind that the additional cost of special design work is far greater, proportionately, in the small installation than the large one. Because the chief source of extra charges lies in preparation rather than manufacturing costs, the added expense is easily absorbed in the erection of a large library.

If you are in doubt concerning the advisability of special design work, or if you wish to know whether the variations from standard dimensions required in your case will necessitate special work, do not hesitate to write Snead and Company for advice. It may be that we will be able to suggest an arrangement of standard units which will suit your purpose and thus avoid the expense of special work.

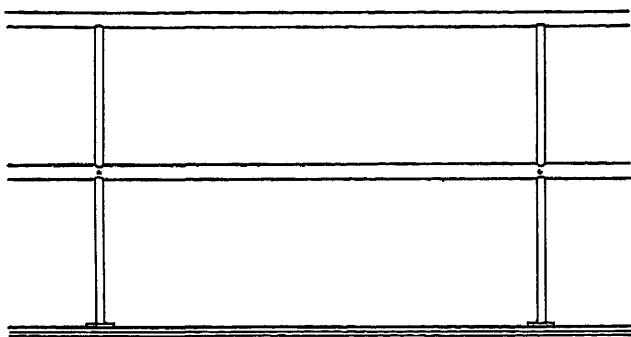


*Fig. 21 Snead sheet steel cases with glass doors, Widener Memorial Library, Harvard University*

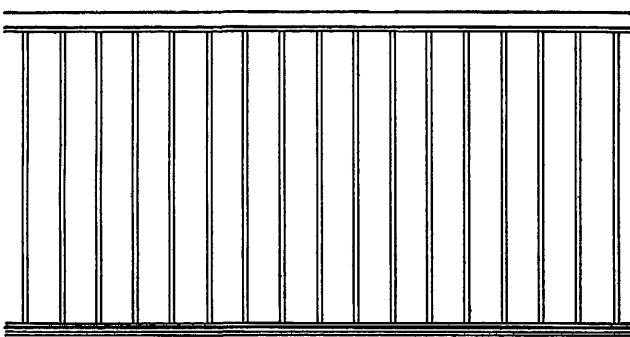
WE HAVE standardized our bookstack railings in several attractive designs, shown on this page. The plain bar railing consists of square steel bars,  $\frac{1}{2}$  inch in section, spaced 4" apart and set into small channel frames at top and bottom. The top channel also carries a hand-rail. This plain type has been somewhat varied by modifications in the spacing and grouping of the bars as shown. More elaborate railings can be made especially, but the

modern tendency is towards simplicity.

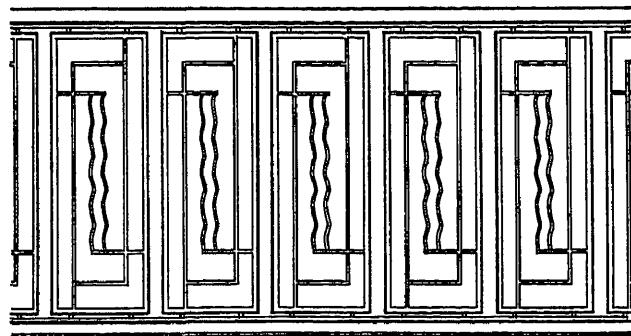
In line with this trend, the inexpensive pipe railing is now widely used. Since the majority of stack rails are used on stairs and as guards at windows, the sanitary, easily-cleaned pipe design is entirely suitable. Where the stack decks run across arched door openings or in other exposed places, the bar railing is usually preferred unless strict economy must take precedence over other considerations.



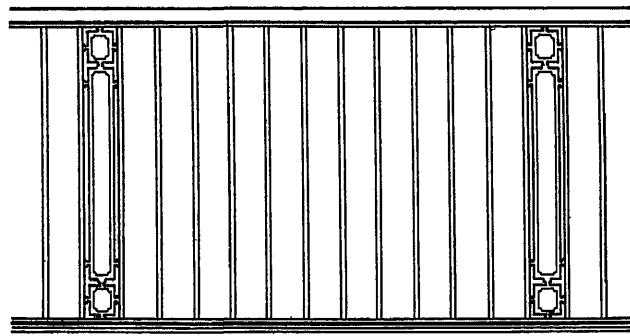
DOUBLE PIPE



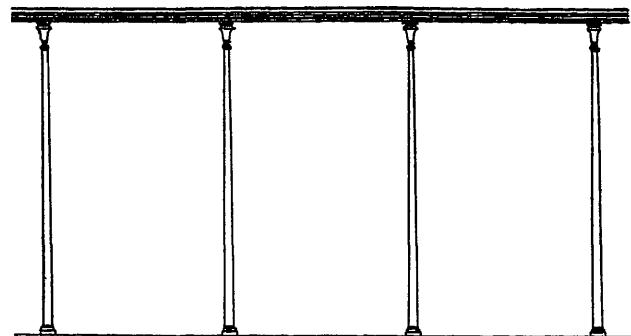
PLAIN BAR



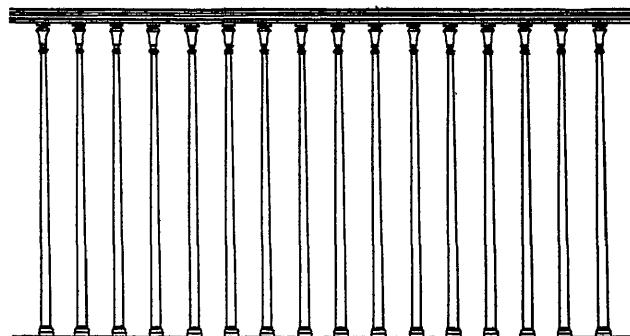
MODERNE



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FLORENTINE



COLONIAL



Fig 22 Showing double automatic booklift, San Francisco Public Library, completely enclosed with sliding doors, and prepared for vertical extension

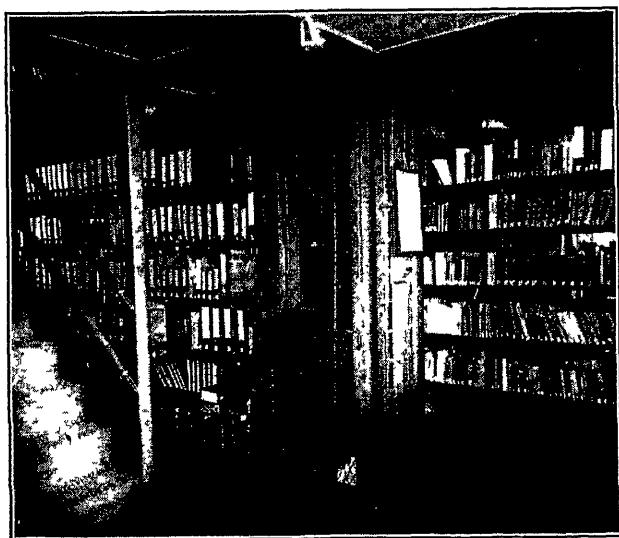


Fig 23 Hand power booklift installed in a stack compartment, Dairen Public Library, Manchuria. The most economical type of booklift

■ N A multi-tier stack that is too small to require an automatic book distributor or electric elevator, a small hand-power booklift is usually found necessary. The type and size are naturally determined by the use to which it will be put. A car measuring about 16 by 20 by 30 inches, inside, with one intermediate hinged shelf, operated by a hand rope and with an automatic brake, will usually solve the problem adequately. Smaller outfits are made, the simplest being a pair of balanced trays, or even one tray counterweighted, but these are only intended to carry two or three volumes at a time.

The more generally used dumb-waiter type requires a continuous enclosure of steel plate or wire mesh with attendant framing and accessories, the simple machinery being housed at the top of the shaft. One of the most popular methods of enclosing a lift is to build it right into a stack compartment at the end of a range near the center of the stack room, and this is usually the least expensive arrangement. An opening is put in the shaft at each stack level about three feet above the floor, with a ledge shelf for the convenient handling of books. No doors are necessary.

For larger requirements an inexpensive electric elevator can be installed, involving very small running expense for power, maintenance and repairs. A shaft 4'9" by 5'3" will accommodate a car 3'4" by 4'4", inside dimensions, sufficient for a book truck and an attendant. Doors should be provided at each stack and floor level. An automatic push button control elevator is safe and easy to operate.

**S**ARTIFICIAL light must be relied upon in a majority of cases, especially in multi-tier work, arrangements for lighting the bookstacks are a very important consideration in making library plans. If selected with care, lighting can be convenient, durable, efficient and attractive, without undue expense.

In one-tier work a great amount of natural light can usually be counted on and the proper spacing of a sufficient number of regular ceiling reflectors is all that need be planned. But if the ceiling is high or an irregular stack layout prevents proper diffusion, separate lamps for the stacks must be installed. In this case the work is similar to that used in multi-tier installations.

The principle upon which the Snead stack aisle light reflector was designed is based on control of light by means of a perforated reflecting surface, the amount of light passing through being regulated by the size and position of the perforations, and the rest being reflected by a white vitreous enamel inside surface to distant books. A light-baffle along the axis of the aisle protects the eyes from glare and has the effect of softening the illumination. It has been found that when the reflectors are spaced 6 to 7½ feet apart, the rays from one overlap those from the adjacent ones and the shadow of the baffle does not strike the books. Reflector and receptacle are worked out together so as to obtain the maximum amount of headroom. Steel was selected as the material on account of its durability, and the shape was developed to direct the light rays properly, and at the same time to prevent loss of efficiency through accumulation of dust.

Over 4000 reflectors have been installed in the new Sterling Memorial Library, Yale University—the greatest single bookstack lighting installation in the world. Installations have also been made at the Engineering Foundation Library (New York), Cornell, University of Rochester, University of

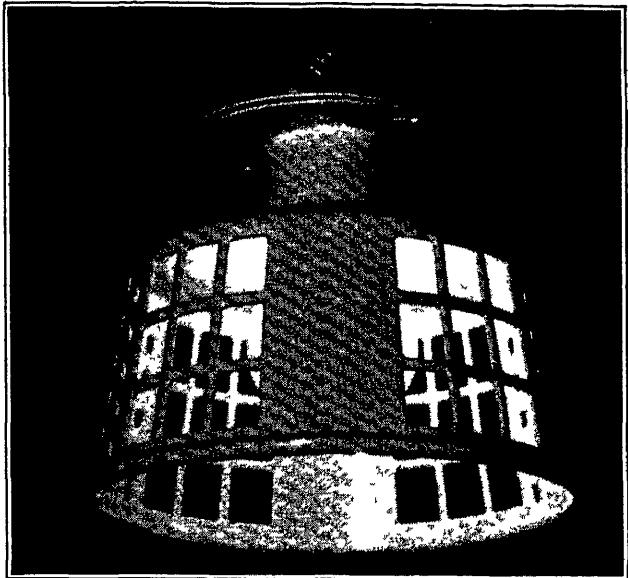
Lyons (France), and International Institute of Private Law (Rome).

The horizontal lighting conduits are usually passed through holes punched in the deck framing, in multi-tier stacks, and rested on the cover plates or top bracing of one-tier installations. This places the lights and reflectors as close as possible to the books and leaves a maximum of headroom.

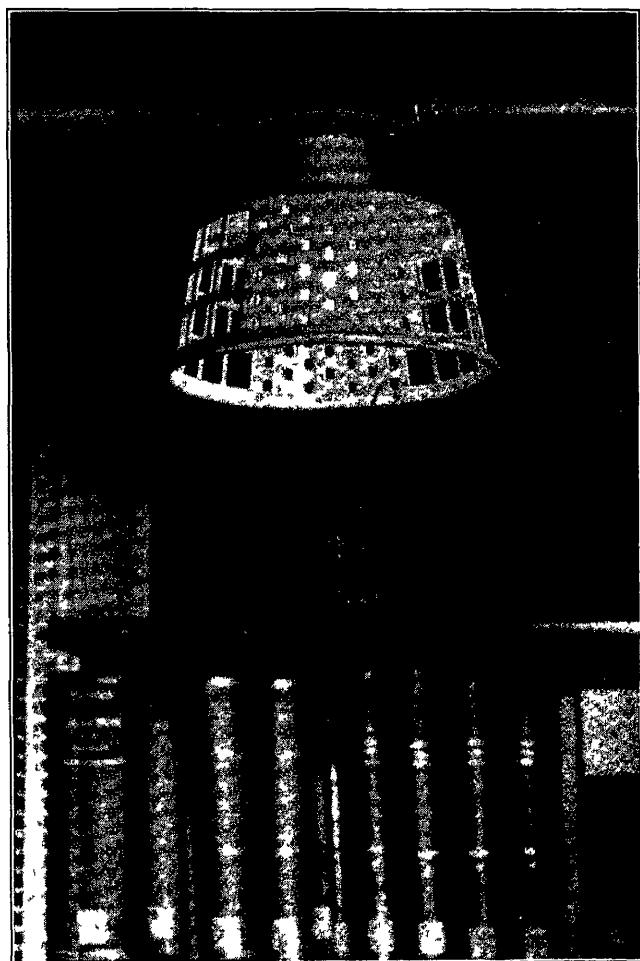
The lights are best controlled from switches on the range ends. A less expensive method is to have a hanging switch at each aisle or pull chains for every light. In any case, it is advisable to have a master switch at the delivery desk.



Fig. 24. Snead Stack Aisle Light Reflectors, Sterling Memorial Library, Yale University, New Haven, Conn., illumination solely from Snead Reflectors showing even distribution of light and absence of glare.



*Figs 25 and 26 Detailed views of Snead sanitary unbreakable aisle light reflectors, Sterling Memorial Library, Yale University, New Haven, Conn*



FOR many years past there has been a crying need for a light reflector that adequately met stack room requirements

Feeling some responsibility in the matter, Snead and Company undertook the solution of the problem and after lengthy experimentation and tests of over thirty different existing types Snead and Company finally arrived at a solution of the problem of an adequate stack reflector that has been hailed with delight by the librarians who have seen it

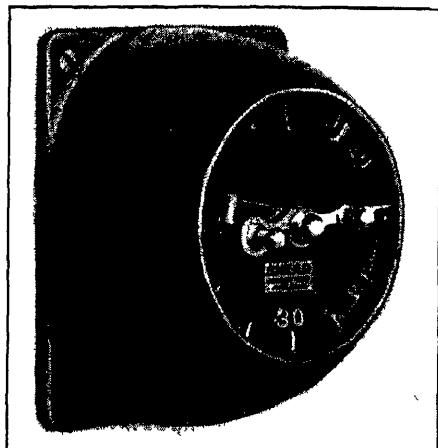
The Snead reflector is, we believe, quite unique in durability and efficiency. It is sanitary, inexpensive and entirely satisfactory in distributing light to the allotted stack space. It protects the eyes from glare, is easy to clean, will not break if dropped accidentally, and has a minimum number of parts. The installation is simple, and bulbs may be readily replaced when necessary. The whole reflector is finished with two coats of baked-on white vitreous enamel, a durable finish which cannot be penetrated by dirt or grit and which has an extremely high reflecting value.

We shall be glad to send your library a Snead reflector so that you may try it out in actual, daily use.



**E** STRONGLY recommend the use of Snead accessories with Snead bookstacks to insure really satisfactory service. Naturally, all Snead accessories are guaranteed, just as the bookstacks themselves are. Each one is carefully constructed from the best materials and will last as long as the bookstack.

Edges and surface finish in every case are perfectly smooth, so that contact with books and shelf surfaces causes no damage, no tearing of bindings or leaves, no scratching or chipping. Simplicity renders them easy to attach and use.



*Fig. 27 SNEAD TIME SWITCH—Made of cast iron with clock-like face having five minute graduations from 0 to 60. By turning the handle on the face to the right the switch can be set to turn off the lights automatically in as many minutes as may be desired, or by turning it back to the left the lights can be turned off immediately. An adjustable stop on the shaft of the handle can be set to reduce the time limit. The whole is held in place on the range end by tap screws.*



*Fig. 28 REFERENCE SHELF—A sliding shelf attached to the under side of the adjustable shelf and contained in the stack compartment when not in use.*

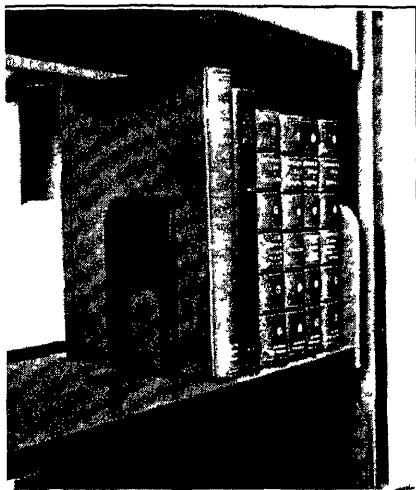


Fig. 29 **BOOK SUPPORT FOR SOLID PLATE SHELF**—The support is held in position by the weight of the end books which rest on a flat tongue extending horizontally along the shelf. The flanged vertical edges prevent books "straddling" the support, thus damaging their leaves. Sturdily constructed from No. 16 gauge sheet steel finished in hard, durable black rubber japan. Heights 6" and 10"

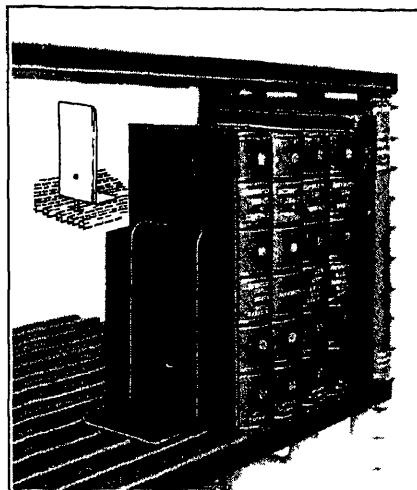


Fig. 30 **BOOK SUPPORT FOR OPEN BAR SHELF**—Constructed of No. 16 gauge sheet steel and finished in baked black rubber japan. A downward projecting L-shaped key fits between the shelf bars, forming a lock when books press against the top of the support. The support is easily adjusted with one hand when grasped at the base. Heights 6" and 10"

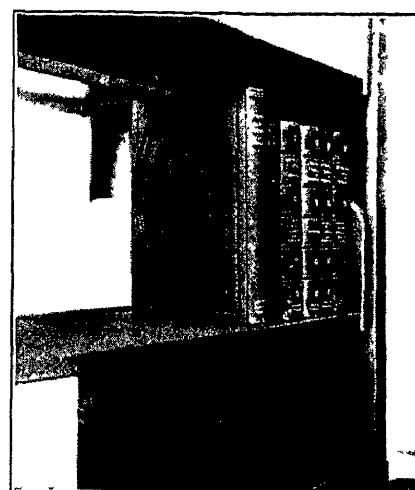


Fig. 31 **WIRE BOOK SUPPORT**—This support, fabricated of heavy spring wire, engages the side flanges of the shelf above, and extends downward, supporting the books below. For use with solid plate shelves only.

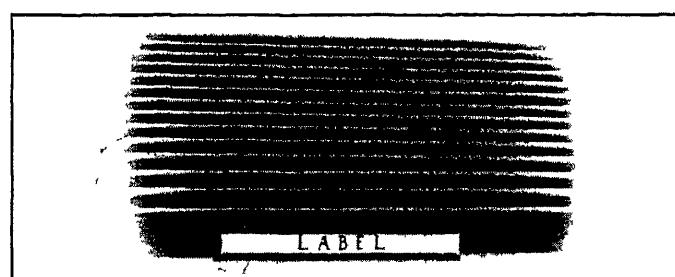


Fig. 32 **SHELF LABEL HOLDER**—Made of cold rolled steel and finished in baked black rubber japan to harmonize with the shelves. Readily adjustable by clipping over the front edge of an Open Bar or solid plate shelf. When attached, the label holder cannot be dislodged while moving books.

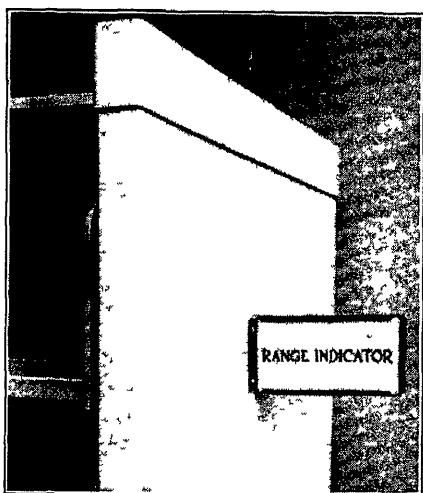


Fig. 33 **RANGE INDICATORS**—Made of plate steel finished in black japan, top and bottom of both sides being flanged to receive cards. Card opening 2 5/8" x 5 3/4".

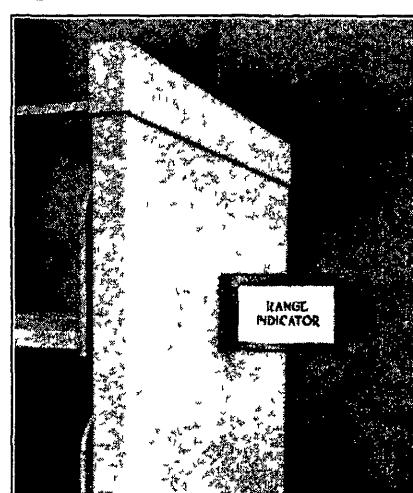


Fig. 34 **RANGE INDICATOR WITH CARD FRAMES**—Solid bronze card frames attached to a V-shaped enameled plate steel frame, and arranged to receive 2 3/4" x 4 3/4" cards.

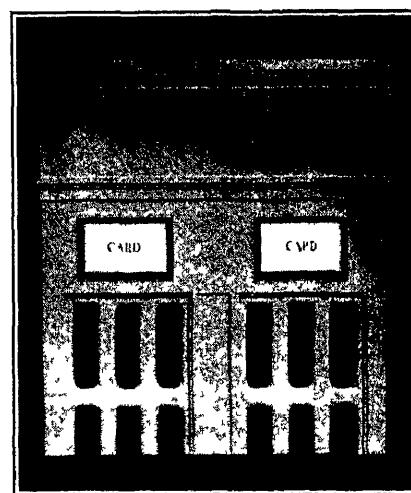


Fig. 35 **CARD FRAME**—Made of polished bronze and attached to the range end by two inconspicuous tap screws. Furnished with either 2 3/4" x 4 3/4" or 1 3/8" x 2 3/8" card opening. A bronzed cast iron Card Frame is also furnished in the larger size.

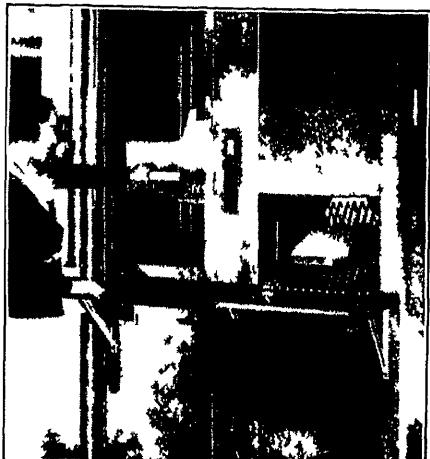


Fig. 36 Showing sending and automatic delivery operations at a stack room station, University of North Carolina, Chapel Hill N.C.



Fig. 37 Return of books from delivery desk to stack room station, Toronto Public Reference Library, Toronto, Ontario



Fig. 38 Automatic delivery of books returned to an open shelf room, Toronto Public Reference Library, Toronto, Ontario

## BOOK CONVEYORS OR DISTRIBUTORS

THE Snead Book Conveyor or Distributor was recently perfected after three years of extensive research, experimentation and the actual trial of numerous models in our factory. It is designed to take books from any stack level to the delivery desk where they are automatically discharged, and to take books from the delivery desk, discharging them at any stack level. The distributor will run either horizontally or vertically as long as it is kept in one plane, and under certain conditions it can be made to operate in more than one plane.

Such a conveying system for books makes it possible to store the majority of books in a large library in stack rooms quite remote from the delivery desk. This allows for the convenient handling of large numbers of books and an extensive stack room, and also permits the most advantageous location of public rooms in the central part of the library.

In designing this conveyor we had three problems especially in mind—all of which are taken care of by the Snead distributor. First, it is simple to operate and absolutely safe even in inexpert hands. Second, it is quiet and smooth-running. Third, it requires no care except occasional lubrication and inspection. Parts will need replacement only at long intervals, and such parts are all standard, so that they may be readily renewed.

In principle, the Snead distributor consists of an endless single chain conveyor (double chains are unsatisfactory because they wear unevenly), which actuates a number of comb bottom book carriers, held constantly in vertical position. The chain is driven by an electric motor controlled with stop and start buttons. These buttons are preferably located at the delivery desk with supplementary buttons for emergency use at the stack decks.

The usual operating speed is sixty-five feet a minute, though this is not arbitrary. The book carriers are made of polished aluminum, smoothed and rounded to prevent any harm to books in handling. All moving parts are guarded and safety devices provided to prevent possible accidents from carelessness. The keynote of the whole Snead conveyor design is simplicity and a minimum of maintenance attention.

The distributor is preferably supplemented by a pneumatic tube system which is used to send call slips from the delivery desk to the various stack room stations. However, if proper containers are provided, the conveyor itself can be used for this purpose, with some loss in the rapidity of service. In any case, the conveyor saves a large amount of time and "foot-work" and eliminates pushing loaded book trucks.

So MANY libraries find it essential to provide special study compartments near the bookstacks that we have devised a method of partition construction so flexible as to meet every requirement. Snead Partitions are made in easily assembled units of any desired height, with or without glass, and

finished in enamel to suit any color scheme. The completed partition is rigid, incombustible and permanent but readily disassembled for alteration. Low cases placed on the aisle side of the carrel will give the reader semi-privacy. If desired, the partition can carry shelves and desk, as in figure 41

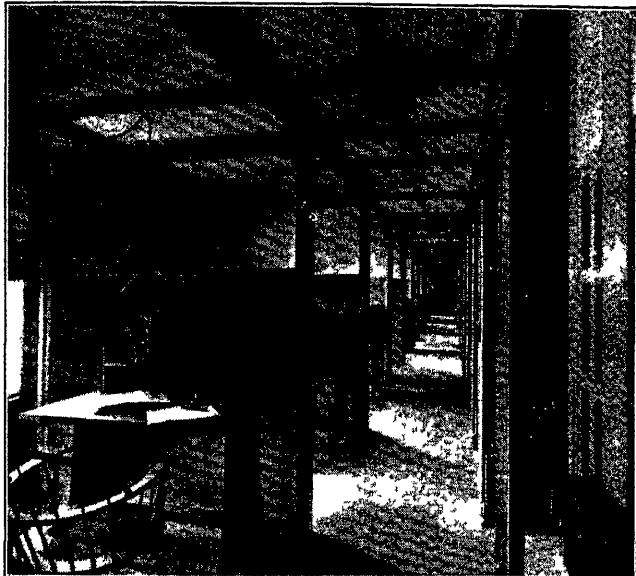


Fig 39 Individual study compartments, Widener Memorial Library, Harvard University



Fig 40 Study carrels and special low cases, University of Illinois, Urbana, Illinois

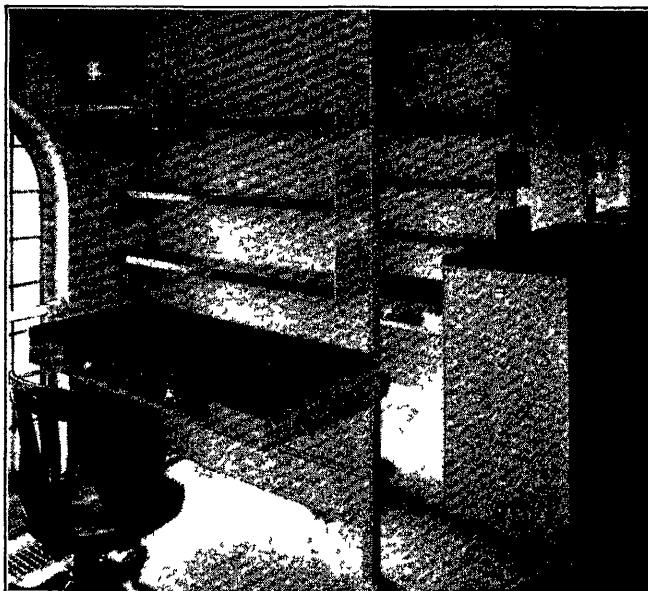


Fig 41 Study carrels showing movable desk and adjustable shelves, Sterling Memorial Library, Yale University, New Haven, Conn



Fig 42 Study carrels in Snead Standard Stack, Baker Memorial Library, Dartmouth College. Separated by steel and glass partitions and protected by open cases.

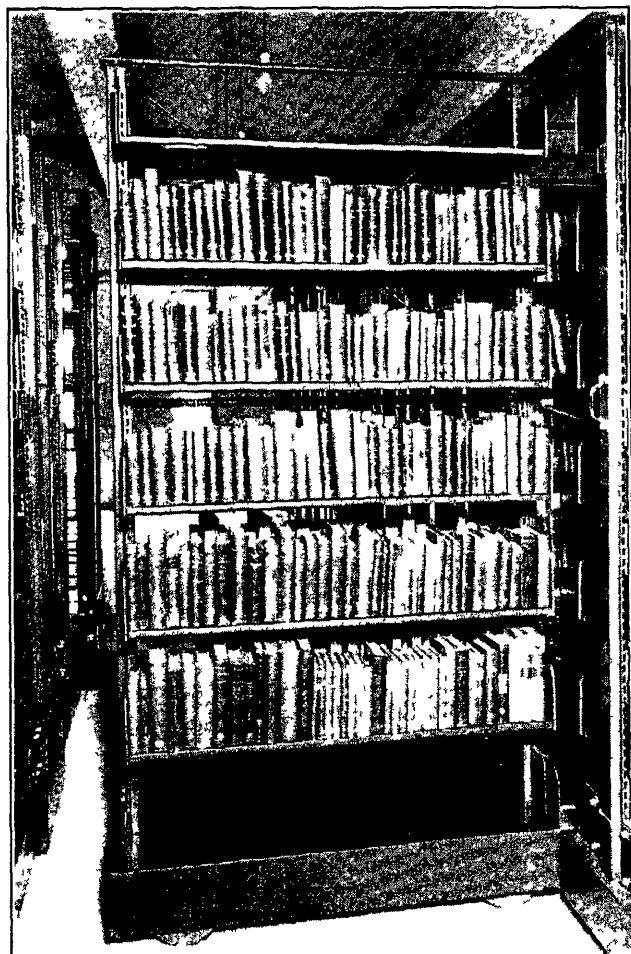
**I**N LARGE public or university libraries, occasions frequently arise where compactness of storage is a prime essential for meeting certain library problems. To meet this need, Snead and Company has developed a system of roller cases by the use of which about 50 per cent more books can be stored in a given space than is possible by the ordinary fixed shelving system.

Simply stated, roller cases are metal stack units mounted on wide tread fibre rollers. When books from these stacks are not needed the cases stand in a solid bank side by side (See figure 44). When a book is called for, a single case is pulled straight out into the main aisle by a handle (See figures 43 and 44).

Snead roller cases differ from any others in that they require neither floor tracks nor overhead support or guidance, thus utilizing the maximum room height for the storage of books. Overhead tracks are ex-

pensive and floor tracks form obstructions, collect dirt, and are particularly objectionable in the aisles, as well as adding to installation costs. Snead roller cases, requiring neither, may be used in any empty room whose floor is hard enough to permit them to roll readily. Carefully finished concrete or smooth, hard tile make excellent floors for this purpose. The main aisles are, of course, made wide enough to accommodate the pulled-out case. Locking arrangements can be provided to secure a whole bank of roller cases, or locks can be installed on each case. Roller cases equipped with wide ends, installed side by side and extending from the floor to the ceiling, effectively protect their contents from dust and fire. At the same time the books are as accessible as letters in a file cabinet.

The cases themselves can be provided with either standard or bracket type shelf supports, as described in detail in another section of this book.



*Fig. 43 Roller Cases, Toronto Public Reference Library, one pulled out full length*

## ROLLER CASES

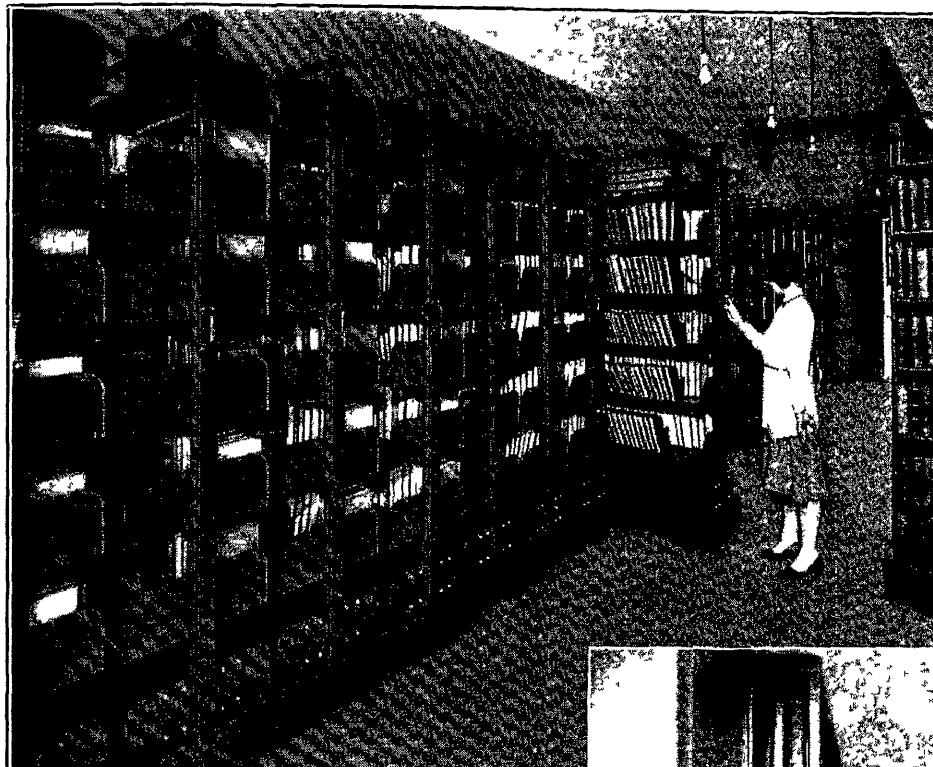


Fig 44 Bank of Roller Cases, Bracket Type, Toronto Public Reference Library, provided for books seldom called for, fifty per cent more volumes stored than in same space in stack room

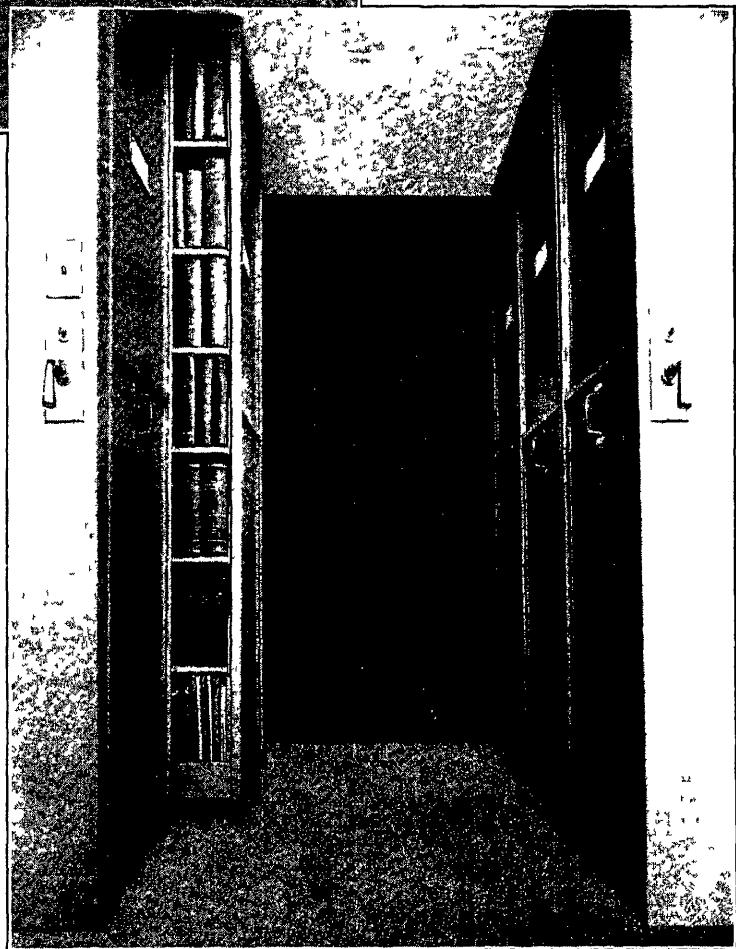


Fig 45 Roller Cases showing (1) handles (extreme right and left) which lock entire bank, (2) protection against dust and fire in closed position, (3) overhead light sunk flush into ceiling, avoiding loss of overhead space, (4) absence of floor and overhead tracks and guides—can be installed on any hard, level floor

## STANDARD DIMENSIONS FOR MULTI-TIER INSTALLATIONS

HEIGHT—7 feet and 7 feet 6 inches, measuring from top surface of deck floor to top surface of next deck floor

**AISLES—Main, 3 feet to 5 feet or more Range, 2 feet 6 inches to 3 feet or slightly more**

**RANGES**—Lengths, as required, preferably not over 30 feet, in even multiples of shelf length. Depths, single faced  $8\frac{1}{4}$ " to  $12\frac{1}{2}$ " for books,  $18\frac{1}{8}$ " and  $22\frac{3}{4}$ " for newspapers, double faced  $16\frac{1}{2}$ " to  $24\frac{1}{4}$ " for books,  $37\frac{1}{2}$ " and  $44\frac{1}{4}$ " for newspapers.

**SHELVES**—Lengths, as required, generally 3 feet, not to exceed 3 feet 6 inches, depths, 8", 9", 10" and 12" for books, 18" and 22" for newspapers

STAIRS—Straight runs, well length, 8 to 9 feet, 12 risers, width,

2 feet 6 inches or more Return runs, well length, 6 feet 8 inches,  
12 risers, width, 5 feet or more

**DECK FLOOR**—Rough plate glass slabs, heavily sanded one side  $\frac{3}{4}$ " thick. Rough plate wire glass slabs, heavily sanded one side,  $\frac{5}{8}$ " thick. Marble, fine sand rubbed on all exposed surfaces,  $1\frac{1}{4}$ " thick. Ribbon black slate,  $1\frac{1}{4}$ " thick. Stone substitutes are generally  $1\frac{1}{4}$ " thick. Reinforced concrete slabs,  $2\frac{1}{2}$ " or 3" thick without plaster or floor covering. Floor covering, Asphaltum tile, Rubbertile, cork, linoleum, etc. Total thickness of deck floor, for ordinary span, from top of slabs to bottom of supporting steel framing  $\frac{3}{4}$ " glass,  $4\frac{1}{8}$ ",  $5\frac{1}{8}$ " glass, 4",  $1\frac{1}{4}$ " marble, slate or stone,  $4\frac{1}{8}$ ". Concrete,  $2\frac{1}{2}$ " to 3"

## Width and Capacity of Shelves

No definite rules can be laid down regarding the width of shelves required as much depends on the method of classification, space available and use to which the library is put. Where economy and compactness of storage are important, 8 inch shelving is recommended for bookstacks in general. Most books are 6 inches or less in depth and it is well to bear in mind that waste space back of books collects dirt and is objectionable while the same space added to the width of the aisles becomes valuable.

The number of volumes that can be stored per lineal foot of shelving depends on the character of the books. The following table has been prepared by averaging the data collected from various general and special libraries, for convenience in computing the amount of stack necessary, the capacity being based on stacks  $7\frac{1}{2}$  feet high with seven rows of shelves, six adjustable and one fixed, in the height.

Kind of books	Vols per ft of shelf	Vols per linl ft of single-faced range	Vols per 3 ft of single faced range	Recommended width of shelves
Circulating	10	70	210	8 inches
Fiction	9	63	189	8 "
Economics	9	63	189	8 "
General Literature	8	56	168	8 "
Reference	8	56	168	8-10 "
History	8	56	168	8 "
Technical and Scientific	7	49	147	8-10 "
Medical	6½	45½	136½	10 "
Law	4½	38½	115½	8 "
Public documents	6	42	126	8 "
Bound periodicals	5½	38½	115½	10 "
U S Patent Specifications 2 (144 vols ) per year		14		8 "

For Double-faced ranges multiply number of volumes listed above by two

### Unit Stack Weights

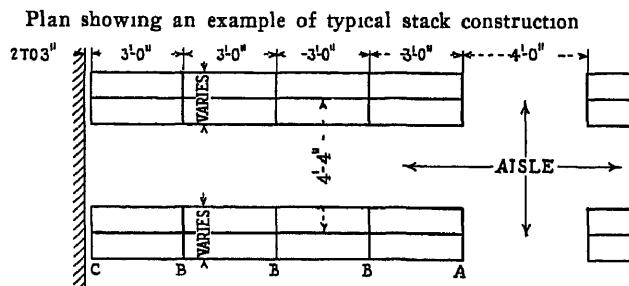
Books—25 lbs. per cubic foot of ranges

STACK CONSTRUCTION.—8 lbs. per cubic foot of ranges.

STEEL FLOOR FRAMING 4 lbs. per square foot of gross deck area

**STEEL FLOOR FRAMING**—4 lbs per square foot of gross deck area  
**DECK FLOORING**—2½" reinforced concrete slab, 32 lbs per sq ft  
gross area 3" reinforced concrete slab, 38 lbs per sq ft,  
gross area If plastered and with floor covering add 8 lbs per  
sq ft, gross area 1¼" marble or slate, 18 lbs per sq ft, aisle  
area ¾" rough plate glass, 11 lbs per sq ft, aisle area  
5/8" rough wire glass, 10 lbs per sq ft, aisle area

LIVE LOADS—100 lbs per sq ft of aisle area to avoid vibration. For column loads assume 40 lbs per sq ft of aisle area for live load and reduce this figure 5% for each deck below the top deck.



## Stack Loads

The following table illustrates the general variation of stack loads for from one to twelve tiers of stack construction

### Loading as per table of unit stack weights

A=Typical aisle end support

B=Typical intermediate supp

8" SHELVING			
Including stacks, books, live load and heaviest deck floor			
Tiers	A	B	C
1	495	990	495
2	2,130	2,860	1,470
3	3,730	4,710	2,430
4	5,310	6,550	3,400
5	6,870	8,370	4,340
6	8,400	10,170	5,280
7	9,910	11,950	6,210
8	11,400	13,720	7,140
9	12,870	15,490	8,060
10	14,320	17,230	8,970
11	15,760	18,970	9,880
12	17,170	20,690	10,790

10" SHELVING			
Tiers	A	B	C
1	620	1,240	620
2	2,360	3,320	1,700
3	4,070	5,380	2,770
4	5,760	7,430	3,840
5	7,420	9,470	4,890
6	9,060	11,490	5,940
7	10,680	13,500	6,990
8	12,290	15,500	8,030
9	13,870	17,480	9,060
10	15,430	19,450	10,080
11	16,980	21,410	11,100
12	18,510	23,360	12,120

# PARTIAL LIST OF SNEAD STACK INSTALLATIONS

ALABAMA	U S Dept of Agriculture, Washington, D C	University of Notre Dame, Notre Dame, Ind	Welch Medical Library, Johns Hopkins Univ, Baltimore, Md
Alabama College Library, Montevalle, Ala	Washington Public Library, Washington, D C	Purdue Univ Library, Lafayette, Ind	University of Maryland Library, Baltimore, Md
University of Alabama Library, Tuscaloosa, Ala		Indiana St Normal School, Terre Haute, Ind	Gilman Hall, Johns Hopkins Univ, Baltimore, Md
East Lake Branch, Birmingham Public Library, Birmingham, Ala	FLORIDA	Gary Public Library, Gary, Ind	Medical and Chirurgical Faculty of Maryland, Baltimore, Md
ARIZONA	Florida Agricultural Experiment Station, Univ of Fla, Gainesville, Fla	IOWA	Phipps Psychiatric Institute, Baltimore, Md
University of Arizona Library, Tucson, Ariz	Lakeland Public Library, Lakeland, Fla	Davenport Public Library, Davenport, Ia	Maryland Historical Society, Baltimore, Md
ARKANSAS	GEORGIA	Iowa State College, Ames, Ia	
University of Arkansas Library, Fayetteville, Ark	Emory University, Emory University, Ga	Sioux City Public Library, Sioux City, Ia	MASSACHUSETTS
Arkansas St Capitol Law Library, Little Rock, Ark	Savannah Public Library, Savannah, Ga	Iowa St Teachers College, Cedar Falls, Ia	Amherst College Library, Amherst, Mass
CALIFORNIA	Wesleyan Female College, Macon, Ga	Iowa St Univ Law Bldg, Iowa City, Ia	Beverly Farms Library, Beverly Farms, Mass
University of California, Berkeley, Cal	Medical College of Georgia, Augusta, Ga	KANSAS	Boston Athenaeum, Boston, Mass
Mary Norton Clapp Library, Occidental College, Los Angeles, Cal	ILLINOIS	Kansas St Agricultural College, Manhattan, Kansas	Concord Free Public Library, Concord, Mass
Los Angeles Public Library, Los Angeles, Cal	American College of Surgeons, Chicago, Ill	KENTUCKY	Harvard University, Widener Memorial Library, Chemical Laboratory, Cambridge, Mass
Sacramento City Library, Sacramento, Cal	Buck Meml Library, Illinois Wesleyan Univ, Bloomington, Ill	Southern Baptist Theological Seminary, Louisville, Ky	Massachusetts College of Pharmacy, Boston, Mass
San Francisco Public Library, San Francisco, Cal	Chicago Public Libraries, Legler Branch, Douglas Branch, Chicago, Ill	Louisville Public Library, Louisville, Ky	Mass Institute of Technology, Cambridge, Mass
Leland Stanford University Library, Stanford University, Cal	University of Chicago, Classic Bldg, Theology Bldg, Wiesboldt Hall, Harper Meml Library, Chicago, Ill	LOUISIANA	Wheaton College, Norton, Mass
California State Library, Sacramento, Cal	Garrett Biblical Institute, Evans ton, Ill	Louisiana Polytechnic Inst, New Orleans, La	Williams College, Williamstown, Mass
Pacific School of Religion, Berkeley, Cal	Northwestern University, Evans ton, Ill	Hill Memorial Library, University of Louisiana, Baton Rouge, La	Springfield City Library, Springfield, Mass
COLORADO	University of Illinois Library, Urbana, Ill	Loyola Univ Library, New Orleans, La	Fall River Public Library, Fall River, Mass
Denver Public Library, Denver, Col	Cudahy Memorial Library, Loyola University, Chicago, Ill	Dixon Hall, Sophie Newcomb College, Tulane Univ, New Orleans, La	Lynn Public Library, Lynn, Mass
CONNECTICUT	Evanston Public Library, Evans ton, Ill	MAINE	Mason Library, Great Barrington, Mass
Burroughs Library and Reading Room, Bridgeport, Conn	Peoria Public Library, Peoria, Ill	Bangor Public Library, Bangor, Me	Somerville Free Public Library, Somerville, Mass
Connecticut College for Women, New London, Conn	Appellate Court Library, Mt Vernon, Ill	Portland Public Library, Portland, Me	Beverly Public Library, Beverly, Mass
Hagaman Memorial Library, East Haven, Conn	INDIANA	Maine Historical Society, Portland, Me	Perkins Inst for the Blind, Watertown, Mass
Olin Memorial Library, Wesleyan University, Middletown, Conn	Concordia College, Fort Wayne, Ind	MARYLAND	Brookline Public Library, Brookline, Mass
Sterling Memorial Library, Yale University, New Haven, Conn		Baltimore Bar Library, Baltimore, Md	
Blackstone Memorial Library, Branford, Conn			MICHIGAN
Williams Memorial Library, Trinity College, Hartford, Conn			Marygrove College, Detroit, Mich
Hartford Medical Society, Library Wing, Hartford, Conn			Michigan Agricultural College, East Lansing, Mich
Ferguson Memorial Library, Stamford, Conn			University of Michigan Library, Ann Arbor, Mich
Conn Agricultural Experiment Station, New Haven, Conn			State Normal College Library, Ypsilanti, Mich
Phoebe Griffin Noyes Library, Lyme, Conn			Sault Ste Marie Public Library, Sault Ste Marie, Mich
Peck Library, Norwich Free Academy, Norwich, Conn			
Sterling Law Library, Yale Univ, New Haven, Conn			MINNESOTA
Sterling Hall of Medicine, Yale Univ, New Haven, Conn			Hill Reference Library, St Paul, Minn
DELAWARE			Minneapolis Public Library, Minneapolis, Minn
Delaware State Capitol, Dover, Del			Minnesota St Normal School, Mankato, Minn
DISTRICT OF COLUMBIA			St Paul Public Library, St Paul, Minn
Geophysical Laboratory, Carnegie Inst of Washington, Washington, D C			
Mullen Library, Catholic Univ of Amer, Washington, D C			MISSISSIPPI
Library of Congress, Washington, D C			Millsaps College, Jackson, Miss
U S Dept of Commerce Bldg, Washington D C			MISSOURI
U S Dept of the Interior Bldg, Washington, D C			Concordia Seminary, St Louis, Mo
U S Dept of Labor Bldg, Washington, D C			Drury College, Springfield, Mo
U S Shipping Board, Washington, D C			Washington University, Medical School, Law School, Biology Dept, St Louis, Mo
U S War Department Bldg, Washington, D C			University of Missouri Library, Columbia, Mo
U S Tariff Commission Bldg, Washington, D C			University of Missouri, Biology Bldg, Columbia, Mo
Army War College, Washington D C			

## The Small Library

IT HAS sometimes erroneously been thought that Snead and Company was not interested in the small library. Quite the contrary is true, and we especially desire to be consulted in the planning of the less pretentious public or private library, or the housing of books for schools, clubs and churches. The results of our forty years of experience in equipping every type of library are, of course, available to anyone who has a library-planning problem to meet.

The small library more than the large, perhaps, can be greatly benefited by the use of standard equipment in regular stock sizes, as outlined in another section of this book. By the use of standard stacks and other supplies, the small library can secure the finest type of metal library appointments, promptly delivered and well serviced, without undue expense.

If multi-tier construction is to be used in a small library, it will probably be limited to 3 or 4 tiers at the most. With careful planning this type of building can be interesting and beautiful, and have real character and distinction (see figures 13, 14 and 15).

Practically all of the principles laid out in this book apply, in some degree, to the small library. As in other cases, we will either provide the necessary equipment with complete instructions for its erection by local workmen, or we will undertake the responsibility for the whole installation, complete and ready for books to be put on the shelves. If the library is a simple one-tier type we recommend the employment of local workmen as entirely satisfactory and less expensive. On more elaborate installations the use of our experienced men is desirable.

Welles Medical Library, Johns Hopkins Univ, Baltimore, Md

University of Maryland Library, Baltimore, Md

Gilman Hall, Johns Hopkins Univ, Baltimore, Md

Medical and Chirurgical Faculty of Maryland, Baltimore, Md

Phipps Psychiatric Institute, Baltimore, Md

Maryland Historical Society, Baltimore, Md

MASSACHUSETTS

Amherst College Library, Amherst, Mass

Beverly Farms Library, Beverly Farms, Mass

Boston Athenaeum, Boston, Mass

Concord Free Public Library, Concord, Mass

Harvard University, Widener Memorial Library, Chemical Laboratory, Cambridge, Mass

Massachusetts College of Pharmacy, Boston, Mass

Mass Institute of Technology, Cambridge, Mass

Wheaton College, Norton, Mass

Williams College, Williamstown, Mass

Springfield City Library, Springfield, Mass

Fall River Public Library, Fall River, Mass

Lynn Public Library, Lynn, Mass

Mason Library, Great Barrington, Mass

Somerville Free Public Library, Somerville, Mass

Beverly Public Library, Beverly, Mass

Perkins Inst for the Blind, Watertown, Mass

Brookline Public Library, Brookline, Mass

MICHIGAN

Marygrove College, Detroit, Mich

Michigan Agricultural College, East Lansing, Mich

University of Michigan Library, Ann Arbor, Mich

State Normal College Library, Ypsilanti, Mich

Sault Ste Marie Public Library, Sault Ste Marie, Mich

MINNESOTA

Hill Reference Library, St Paul, Minn

Minneapolis Public Library, Minneapolis, Minn

Minnesota St Normal School, Mankato, Minn

St Paul Public Library, St Paul, Minn

MISSISSIPPI

Millsaps College, Jackson, Miss

MISSOURI

Concordia Seminary, St Louis, Mo

Drury College, Springfield, Mo

Washington University, Medical School, Law School, Biology Dept, St Louis, Mo

University of Missouri Library, Columbia, Mo

University of Missouri, Biology Bldg, Columbia, Mo

MONTANA

University of Montana, Missoula, Mont

NEBRASKA

Creighton University, Omaha, Neb

NEW HAMPSHIRE

Dartmouth College, Baker Memorial Library, Amos Tuck School, Hanover, N H

New Hampshire Historical Society, Concord, N H

# PARTIAL LIST OF SNEAD STACK INSTALLATIONS

Manchester Public Library, Manchester, N H  
 New Hampshire State Library, Concord, N H  
 Davis Memorial Library, Phillips-Exeter Academy, Exeter, N H  
 Howe Library, Hanover, N H  
 Barnes Library, Kimball Academy, Meriden, N H

## NEW JERSEY

Elizabeth Public Library, Elizabeth, N J  
 Summit Free Public Library, Summit, N J  
 Princeton Theological Seminary, Princeton, N J  
 Johnson Public Library, Hackensack, N J  
 Cooper Branch Library, Camden, N J  
 Free Public Library, East Orange, N J  
 Essex County Court House, Newark, N J

## NEW YORK

Engineering Societies Library, New York, N Y  
 Amer Geographical Society, New York, N Y  
 Syracuse Public Library, Syracuse, N Y  
 Russell Sage Foundation Library, New York, N Y  
 New Rochelle Public Library, New Rochelle, N Y  
 Myron Taylor Hall, Cornell Univ., Ithaca, N Y  
 Hispanic Society Library, New York, N Y  
 American Institute of Banking, New York, N Y  
 Biblical Seminary, New York, N Y  
 Brooklyn Public Library, Brooklyn, N Y  
 Columbia University, Schermerhorn Hall, Kent Hall, Officers' Law Library, New York, N Y  
 College of the City of New York, New York, N Y  
 New York Academy of Medicine, New York, N Y  
 Pierpont Morgan Library, New York, N Y  
 Port Chester Public Library, Port Chester, N Y  
 Rensselaer Polytechnic Institute, Troy, N Y  
 University of Rochester, Main Library, Medical School Library, Eastman School of Music, Research Laboratory, Art Museum, Rochester, N Y  
 Vassar College Library, Poughkeepsie, N Y  
 Amer Museum of Natural History, New York, N Y  
 Union Theological Seminary, New York, N Y  
 Rochester Theological Seminary, Rochester, N Y  
 New York Genealogical & Biographical Society, New York, N Y  
 Union College Library, Schenectady, N Y  
 Rochester Medical Association, Rochester, N Y  
 Goodyear Memorial Library, Groton, N Y  
 White Plains Public Library, White Plains, N Y  
 New York County Lawyers Association Library, New York, N Y  
 Adriance Memorial Library, Poughkeepsie, N Y  
 Sarah Lawrence College Library, Bronxville, N Y  
 Huntington Free Library and Reading Room, New York, N Y

**NORTH CAROLINA**  
 Duke University Library, Durham, N C  
 East Carolina Teachers College, Greenville, N C  
 Elon College, Elon College, N C  
 North Carolina College for Women, Greensboro, N C  
 Wake Forest College Library, Wake Forest, N C  
 University of North Carolina Library, Chapel Hill, N C  
 North Carolina Library Commission Library, Raleigh, N C

**NORTH DAKOTA**  
 Liberty Memorial Library, Bismarck, N D  
 University of North Dakota, Grand Forks, N D

**OHIO**  
 Allen Memorial Medical Library, Cleveland, O  
 Albert Emanuel Library, University of Dayton, Dayton, O  
 Hebrew Union College, Cincinnati, O  
 Ohio St Archaeological and Historical Society, Columbus, O  
 University of Cincinnati Library, Cincinnati, O  
 Akron Public Library, Akron, O  
 Ohio State University Library, Columbus, O  
 Mt St Mary's Seminary, Norwood, Cincinnati, O

**OREGON**  
 Oregon Agricultural College, Corvallis, Ore  
 Oregon Historical Society, Portland, Ore  
 University of Oregon Library, Eugene, Ore  
 Library Association of Portland, Portland, Ore

**PENNSYLVANIA**  
 Meadville Public Library, Meadville, Pa  
 Muhlenberg College Library, Allentown, Pa  
 University of Pennsylvania, Duhring Memorial Wing, Penniman Library, Bennett Hall, Biddle Law Library, Philadelphia, Pa  
 Spalding Memorial Library, Athens, Pa

**Pennsylvania**  
 Villanova College, Villanova, Pa  
 Lehigh University Library, Bethlehem, Pa  
 College of Physicians, Philadelphia, Pa

Academy of Natural Sciences, Philadelphia, Pa  
 Haverford College Library, Haverford, Pa  
 Pittsburgh North Side Carnegie Free Library, Pittsburgh, Pa  
 Reading Public Library, Reading, Pa

Theological Seminary of St Charles Borromeo, Overbrook, Pa  
 Drexel College Philadelphia, Pa  
 Van Wickle Memorial Library, Lafayette College, Easton, Pa  
 Newtown Public Library, Newtown, Pa

**GRATZ** College, Philadelphia, Pa

Jefferson Medical College Library, Philadelphia, Pa  
 John Stewart Memorial Library, Wilson College, Chambersburg, Pa

**RHODE ISLAND**  
 William H Hall Free Library, Edgewood, R I  
 Knight Memorial Library, Providence, R I  
 East Greenwich Free Library, East Greenwich, R I

**SOUTH CAROLINA**  
 Clemson College, Clemson College, S C  
 University of South Carolina Library, Columbia, S C

**SOUTH DAKOTA**  
 South Dakota St College of Agriculture and Mechanical Arts, Brookings, S D

**TENNESSEE**  
 University of Tennessee, Knoxville, Tenn  
 George Peabody College for Teachers, Nashville Tenn

**TEXAS**  
 Baylor University, Waco, Tex  
 El Paso Public Library, El Paso, Tex  
 Houston Public Library, Houston, Tex  
 Rice Institute, Houston, Tex  
 Agricultural and Mechanical College, College Station, Tex  
 San Antonio Public Library, San Antonio, Tex  
 Texas State Library, Austin, Tex  
 Dallas Public Library, Dallas, Tex  
 East Texas St Teachers College, Commerce, Tex

**UTAH**  
 Utah Agricultural College, Logan, Utah

**VERMONT**  
 Vermont State Library, Montpelier, Vt  
 Vermont Free Public Library, Montpelier, Vt

**VIRGINIA**  
 Randolph Macon College, Ashland, Va  
 Richmond Public Library, Richmond, Va  
 Virginia State Library, Richmond, Va  
 Randolph Macon Women's College, Lynchburg, Va  
 Sweet Briar College, Sweet Briar, Va

**WASHINGTON**  
 Ellensburg State Normal School, Ellensburg, Wash  
 Longview Public Library, Longview, Wash  
 College of Physicians, Philadelphia, Pa

**WEST VIRGINIA**  
 Bethany College Bethany, W Va  
 West Virginia Collegiate Institute, Institute, W Va  
 West Virginia University, Morgantown, W Va  
 Wheeling Public Library, Wheeling, W Va  
 Fairmont St Normal School, Fairmont, W Va

**WISCONSIN**  
 University of Wisconsin, Agricultural Hall Library, Madison, Wis  
 Wisconsin St Capitol Law Library, Madison, Wis  
 Wisconsin St Historical Society, Madison, Wis

**WYOMING**  
 University of Wyoming, Laramie, Wyoming

**PHILIPPINES**  
 University of the Philippines, Manila, P I

**FOREIGN**  
**CANADA**  
**BRITISH COLUMBIA**  
 University of British Columbia, Point Grey, B C  
 British Columbia Parliamentary Library, Victoria, B C

**ALBERTA**  
 Provincial Library, Edmonton, Alta  
 Calgary Public Library, Calgary, Alta  
 Calgary Court House Law Library, Calgary, Alta  
 Edmonton Court House Law Library, Edmonton, Alta

**ONTARIO**  
 Fort William Public Library, Fort William, Ont  
 Tillsonburg Public Library, Tillsonburg, Ont  
 Toronto Public Reference Library, Toronto, Ont  
 Hamilton Public Library, Hamilton, Ont  
 Ottawa Public Library, Ottawa, Ont  
 Victoria College Library, Toronto, Ont  
 Knox College Library, Toronto, Ont  
 Legislative Library, Toronto, Ont

**QUEBEC**  
 Bibliotheque St Sulpice, Montreal, Que  
 McGill University Medical Library, Montreal, Que  
 Seminary of St Hyacinthe, St Hyacinthe, Que  
 Monastery of Fathers of the Blessed Sacrament, Montreal, Que

**SASKATCHEWAN**  
 Moose Jaw Public Library, Moose Jaw, Sask  
 Regina Public Library, Regina, Sask  
 Saskatchewan Legislative Library, Regina, Sask

**NOVA SCOTIA**  
 Dalhousie University, Halifax N S

**VATICAN CITY**  
 Vatican Library, Vatican City

**ITALY**  
 International Institute of Private Law, Rome, Italy  
 Russian College, Rome, Italy  
 Pontifical Institute of Oriental Studies, Rome, Italy

**FRANCE**  
 University of Lyon Library, Lyon, France

**GREECE**  
 American School of Classical Studies, Athens, Greece

**INDIA**  
 Central Library, Baroda State, Baroda, India  
 Bankipore High Court, Bankipore, India

**HAWAII**  
 Library of Hawaii, Honolulu, T H

**MANCHURIA**  
 Dairen Public Library, Dairen, Manchuria  
 Mukden Public Library, Mukden, Manchuria

**JAPAN**  
 Imperial University, Tokio, Japan  
**CHINA**  
 Tsing Hua College Library, Peking, China

